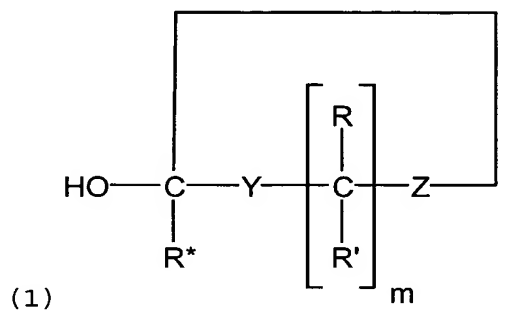
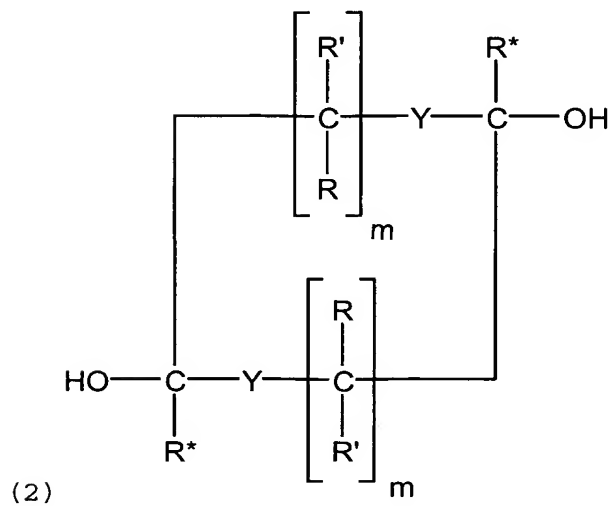


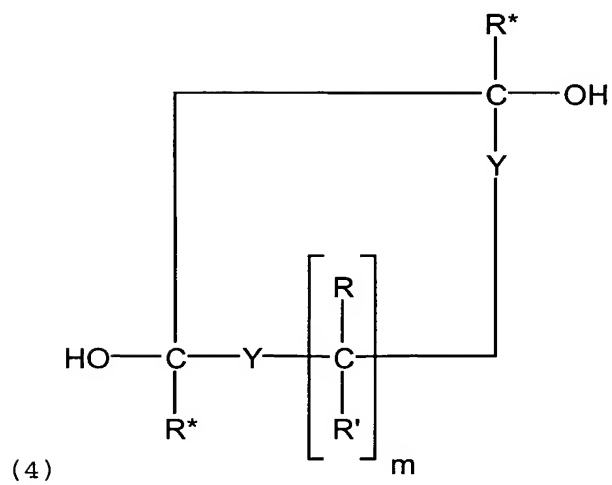
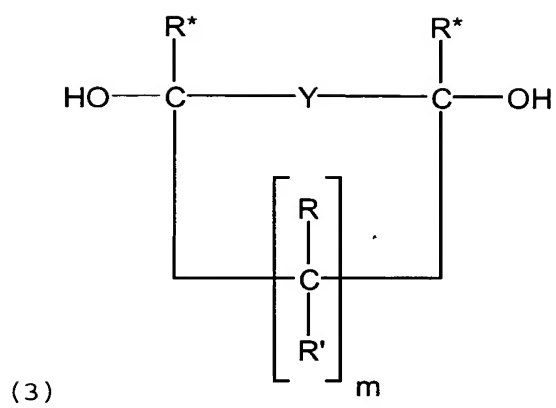
WHAT IS CLAIMED IS:

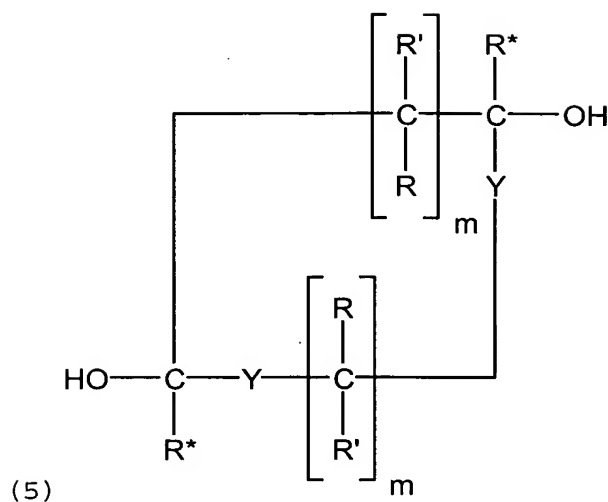
1. A process for synthesizing a modified silane which comprises reacting (I) a cyclic hemiacetal having a structural formula selected from the group consisting of:



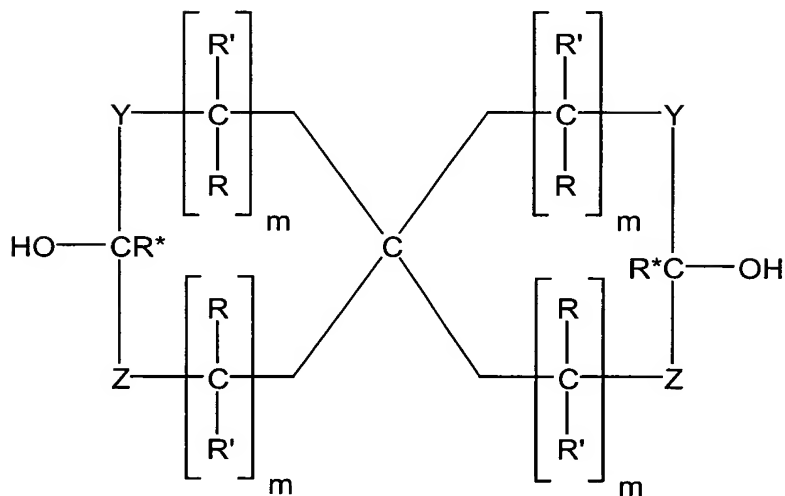
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and



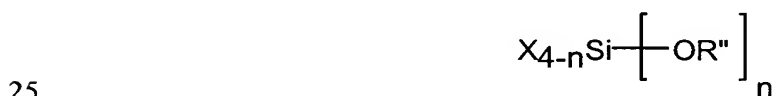
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(6)

wherein m represents an integer from 1 to about 20; wherein R and R' can be the same or different and are selected from the group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing from about 6 to about 18 carbon atoms, alkaryl groups containing from 7 to about 18 carbon atoms, alkoxy groups containing from 1 to about 18 carbon atoms, hydroxy groups, and halide atoms; wherein R\* is selected from the

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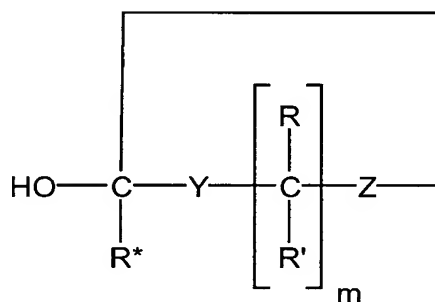
group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing from about 6 to about 18 carbon atoms, and alkaryl groups containing from 7 to about 18 carbon atoms; wherein R, R', and R\* can be bonded together in any combination in cases where R, R', and R\* are not hydrogen atoms, halide atoms, or hydroxy groups; wherein Y represents a moiety selected from the group consisting of oxygen, sulfur, nitrogen, and phosphorus; wherein Z represents a moiety selected from the group consisting of C(R)R', oxygen, sulfur, nitrogen, and phosphorus; wherein the contiguous cyclic ring in formulas (1), (2), (3), (4), (5), and (6) can contain heteroatoms selected from the group consisting of oxygen, sulfur, nitrogen, phosphorus, and silicon in cases where m represents an integer greater than 1; wherein the contiguous cyclic ring in formulas (1), (2), (3), (4), (5), and (6) can be saturated or unsaturated in cases where m represents an integer greater than 1; wherein said alkyl groups, aryl groups, alkaryl groups, and alkoxy groups can contain halide atoms and heteroatoms selected from the group consisting of oxygen, sulfur, nitrogen, phosphorus, and silicon; with (II) a silicon containing compound of the structural formula:



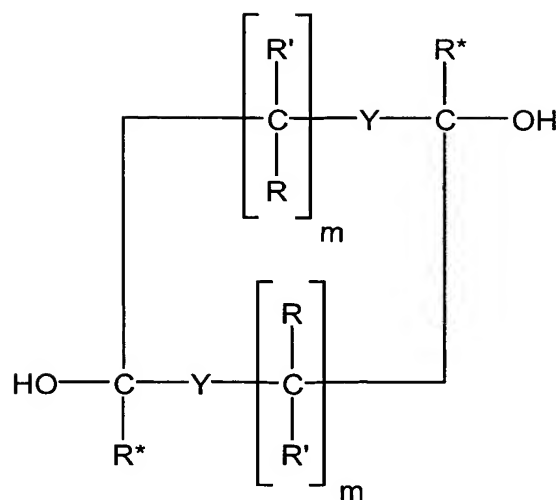
wherein n represents an integer from 1 to 4; wherein R'' is selected from the group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing from about 6 to about 18 carbon atoms, alkaryl groups containing from 7 to about 18 carbon atoms, alkoxy groups containing from 1 to about 18 carbon atoms;

wherein said alkyl groups, aryl groups, alkaryl groups, and alkoxy groups can contain halide atoms and heteroatoms selected from the group consisting of oxygen, sulfur, nitrogen, phosphorus, and silicon; wherein X represents a chemical moiety; wherein said process is conducted at a temperature which is within the range of about 10°C to about 50°C, wherein said process is conducted at a pressure which is within the range of about 25 torr to about 75 torr, and wherein said process is conducted in the presence of an alcohol salt of the structural formula  $M'OR'''$  wherein  $M'$  represents a Group Ia metal and wherein  $R'''$  represents an alkyl group containing from 1 to 10 carbon atoms.

2. A process as specified in claim 1 wherein the cyclic hemiacetal is of the structural formula:

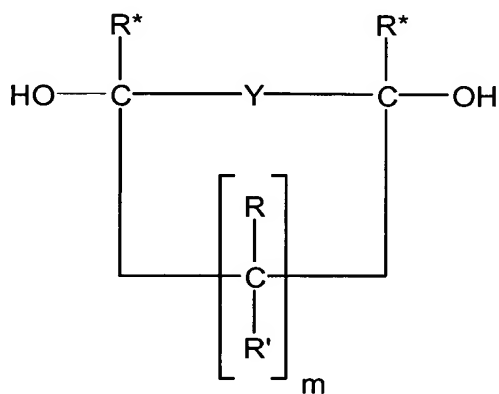


3. A process specified in claim 1 wherein the cyclic hemiacetal is of the structural formula:



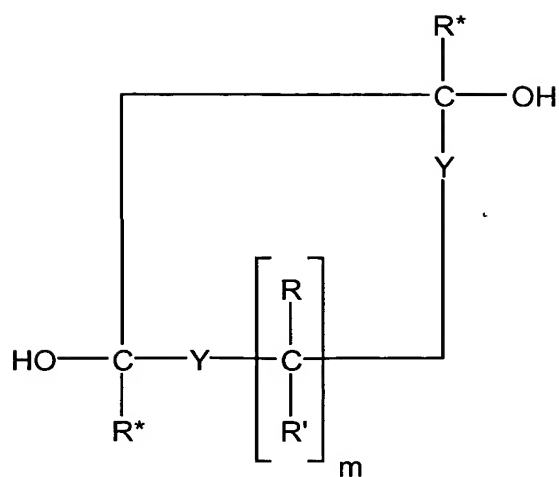
4. A process as specified in claim 1 wherein the cyclic hemiacetal is of the structural formula:

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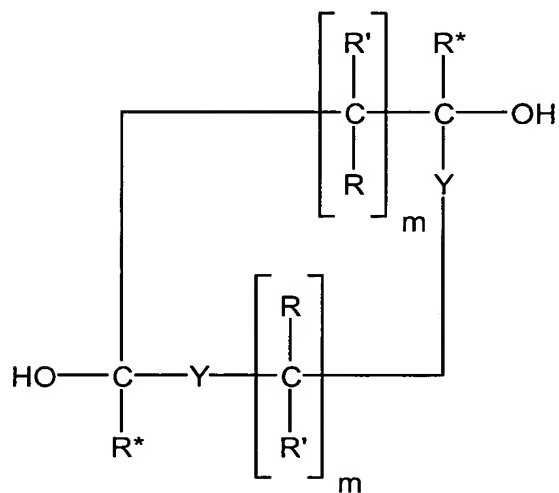
5. A process as specified in claim 1 wherein the cyclic hemiacetal is of the structural formula:

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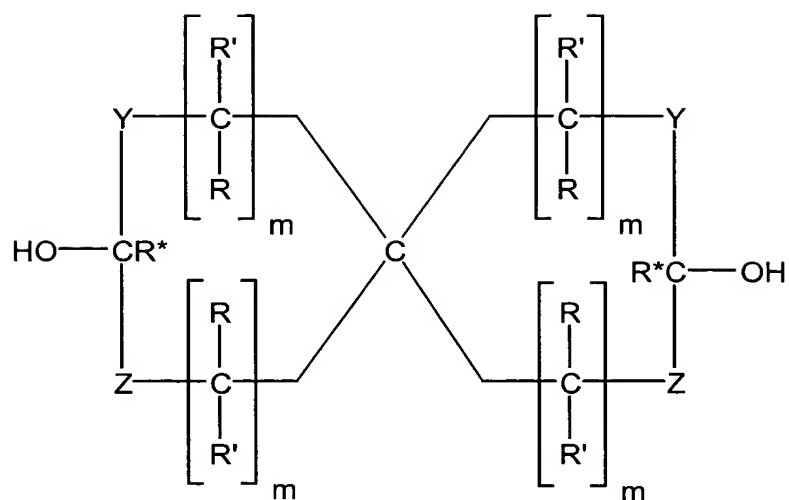
6. A process as specified in claim 1 wherein the cyclic hemiacetal is of the structural formula:

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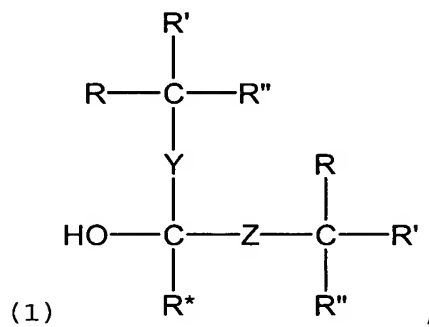


7. A process as specified in claim 1 wherein the cyclic hemiacetal is of the structural formula:

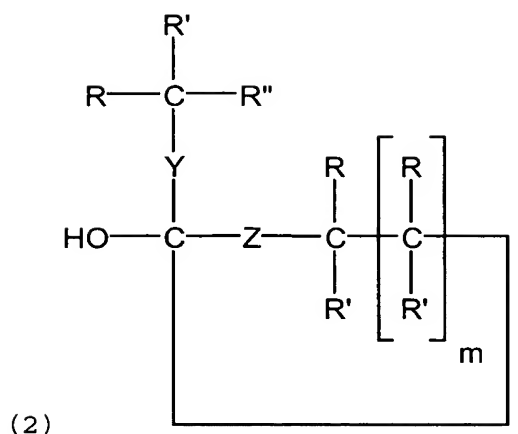
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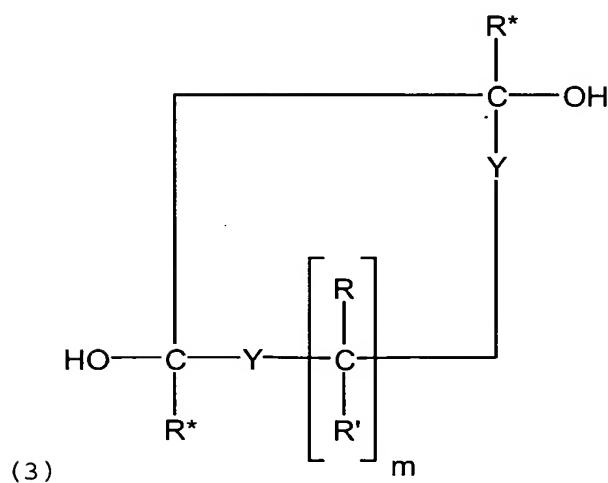
8. A process for synthesizing a modified silane  
 which comprises reacting (I) an organic compound having a  
 5 structural formula selected from the group consisting of:





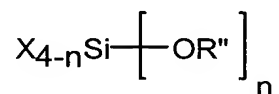


and



wherein m represents an integer from 1 to about 20; wherein R and R' can be the same or different and are selected from the group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing from about 6 to about 18 carbon atoms, alkaryl groups containing from 7 to about 18 carbon atoms, alkoxy groups containing from 1 to about 18 carbon atoms, hydroxy groups, and halide atoms; wherein R\* is selected from the group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing

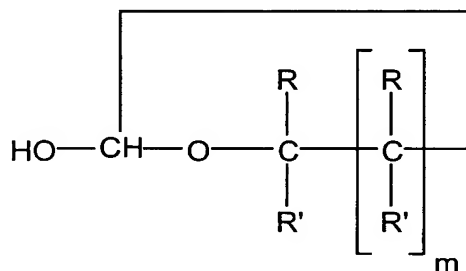
from about 6 to about 18 carbon atoms, and alkaryl groups containing from 7 to about 18 carbon atoms; wherein R, R', and R\* can be bonded together in any combination in cases where R, R', and R\* are not hydrogen atoms, halide atoms, or hydroxy groups; wherein Y represents a moiety selected from the group consisting of oxygen, sulfur, nitrogen, and phosphorus; wherein Z represents a moiety selected from the group consisting of C(R)R', oxygen, sulfur, nitrogen, and phosphorus; wherein the contiguous cyclic ring in formulas (2) and (3) can contain heteroatoms selected from the group consisting of oxygen, sulfur, nitrogen, phosphorus, and silicon in cases where m represents an integer greater than 1; wherein the contiguous cyclic ring in formulas (2) and (3) can be saturated or unsaturated in cases where m represents an integer greater than 1; wherein said alkyl groups, aryl groups, alkaryl groups, and alkoxy groups can contain halide atoms and heteroatoms selected from the group consisting of oxygen, sulfur, nitrogen, phosphorus, and silicon; with (II) a silicon containing compound of the structural formula:



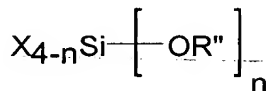
wherein n represents an integer from 1 to 4; wherein R'' is selected from the group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing from about 6 to about 18 carbon atoms, alkaryl groups containing from 7 to about 18 carbon atoms, alkoxy groups containing from 1 to about 18 carbon atoms; wherein said alkyl groups, aryl groups, alkaryl groups, and alkoxy groups can contain halide atoms and heteroatoms selected from the group consisting of oxygen, sulfur,

nitrogen, phosphorus, and silicon; wherein X represents a chemical moiety; wherein said process is conducted at a temperature which is within the range of about 10°C to about 50°C, wherein said process is conducted at a pressure which is within the range of about 25 torr to about 75 torr, and wherein said process is conducted in the presence of an alcohol salt of the structural formula M'OR''' wherein M' represents a Group Ia metal and wherein R''' represents an alkyl group containing from 1 to 10 carbon atoms.

9. A process for synthesizing a modified silane which comprises reacting (I) a cyclic hemiacetal of the structural formula:



wherein R and R' can be the same or different and are selected from the group consisting of hydrogen atoms, alkyl groups containing from 1 to about 12 carbon atoms, aryl groups containing from about 6 to about 18 carbon atoms, and alkaryl groups containing from 7 to about 18 carbon atoms; with (II) a silicon containing compound of the structural formula:



wherein n represents an integer from 1 to 4; wherein R''

represents an alkyl group containing from 1 to about 10 carbon atoms, wherein X represents a chemical moiety other than a hydrogen atom or a halogen; wherein said process is conducted at a temperature which is within the range of

5 about 10°C to about 50°C, wherein said process is conducted at a pressure which is within the range of about 25 torr to about 75 torr, and wherein said process is conducted in the presence of an alcohol salt of the structural formula

10  $M'OR'''$  wherein  $M'$  represents a Group Ia metal and wherein  $R'''$  represents an alkyl group containing from 1 to 10 carbon atoms.